

Chapter 2. Operations Plan

The key features of the recommended plan are summarized in the following table and illustrated in route maps on the following pages. The narrative provides more detail about each element in the plan. In addition, the conceptual proposals for all the potential bus stop locations may be found in Appendix B.

Figure 2-1 Sedona Shuttle – Key Service Features

Service Features	1- Minimal	2- Modules	3- Maximum
Year-Round Routes	<ul style="list-style-type: none"> Fixed-Route Village of Oak Creek – Uptown Sedona Contracted ADA Paratransit on 179 Flex-Route West Sedona (Medical Center – Uptown) 	Minimal Scenario plus: <ul style="list-style-type: none"> West Sedona Fixed-Route (Uptown – Cultural Park) Cottonwood extension 	<ul style="list-style-type: none"> Fixed-Route Village of Oak Creek – Uptown Sedona Contracted ADA Paratransit on 179 Flex-Route West Sedona (Medical Center – Uptown) West Sedona Fixed-Route (Uptown – Cultural Park) Cottonwood extension
Additional High Season Routes	None	Oak Creek Canyon (Uptown Sedona – Slide Rock)	Oak Creek Canyon alternate buses from Slide Rock to Oak Creek Vista
Low Season Headways	30 min. on FR 60 min. circulation on flex	<ul style="list-style-type: none"> 30 min. – West Sedona Fixed-Route 30 - 90 min. – Cottonwood extension 	<ul style="list-style-type: none"> 30 min. circulation on flex-route 15 min. – Fixed-Route 30 – 45 min. – Cottonwood extension
High Season Headways	30 min. 60 min. circulation on flex	<ul style="list-style-type: none"> 30 min. – West Sedona Fixed-Route 30 - 90 min. – Cottonwood extension 30 min. – Oak Creek Canyon 	<ul style="list-style-type: none"> 30 min. circulation on flex-route 15 min. – Fixed-Route 30 min – 45min. – Cottonwood extension 30 min. - Oak Creek Canyon
Number of Vehicles Required*	4 buses	<ul style="list-style-type: none"> 2 buses – West Sedona Fixed- Route 1 or 3 buses – Cottonwood extension (peak/off-peak) 2 buses – Oak Creek Canyon 	<ul style="list-style-type: none"> 6 buses – Combined Fixed-Route 3 buses – Cottonwood extension 2 buses – Flex -Route 2 buses – Oak Creek Canyon
Low Season Hours	8:30 AM – 6:00 PM (9.5 hours)	<ul style="list-style-type: none"> 8:30 AM – 6:00 PM (9.5 hours) – West Sedona Fixed-Route Cottonwood 7:30 AM – 7 PM, 11.5 hours (all-day) or 4.5 hours 7- 9:30 AM, noon – 2 PM (peak) 	<ul style="list-style-type: none"> 8:00 AM – 7:30 PM (11.5 hours) – Fixed-Route, Flex-Route 7:30 AM – 7 PM (11.5 hours) Cottonwood
High Season Hours	8:30 AM – 7:30 PM (11 hours)	<ul style="list-style-type: none"> 8:30 AM – 7:30 PM (11 hours) – West Sedona Fixed-Route Cottonwood 7:30 AM – 7 PM, 11.5 hours (all-day) or 4.5 hours 7- 9:30 AM, noon – 2 PM (peak) 8:30 AM – 6:30 PM (10 hours) Oak Creek Canyon 	<ul style="list-style-type: none"> 8:00 AM – 7:30 PM (11.5 hours) – Fixed-Route, Flex-Route 7:30 AM – 7 PM (11.5 hours) Cottonwood 8:30 AM – 7 PM (10.5 hours) Oak Creek Canyon
Fares	<ul style="list-style-type: none"> \$1.00 single direction/ 2 hour limit - Fixed-Route \$1.50 Flex-Route (free transfers to fixed-route) 	<ul style="list-style-type: none"> \$1.00 single direction/ 2 hour limit – Fixed-Route, Oak Creek Canyon \$2.00 Cottonwood single direction \$4 all day pass \$10 family pass \$30 Monthly pass for Sedona residents \$50 Monthly pass for Cottonwood commuters 	<ul style="list-style-type: none"> Free – Fixed-Route, Oak Creek Canyon for residents, visitors in intercept parking \$3.00 day pass for overnight visitors \$2.00 Cottonwood single direction \$1.50 Flex-Route \$50 monthly pass for Cottonwood commuters

Service Features	1- Minimal	2- Modules	3- Maximum
Benefits	<p>Provides alternative to automobile for tourist-oriented trips along SR179.</p> <p>Introduces basic transit routes to meet community demand for service.</p> <p>People with disabilities have access to basic scheduled transit services.</p> <p>Higher parking turnover at Uptown locations allows for more visitors being able to park and shop at Uptown stores.</p>	<p>Reduces environmental degradation in terms of litter, trails at non-designated locations, etc.</p> <p>Visually more appealing as fewer vehicles parked throughout the canyon and other scenic locations.</p> <p>High frequencies on shuttle service makes system attractive and easier to use.</p> <p>More local parking capacity as reduced presence of vehicles from Cottonwood.</p> <p>People with disabilities have easy access to transit system.</p> <p>Higher parking turnover at Uptown locations allows for more visitors being able to park and shop at Uptown stores.</p> <p>Less congestion on Highways 179 and 89A.</p> <p>Oak Creek Canyon hikers have service option through most daylight hours.</p> <p>Provides a travel alternative for visitors, making the Sedona area a more attractive destination for visitors.</p>	<p>All of the benefits of Phase 2, but enhanced due to higher ridership volumes and much more extensive service options:</p> <p>Strong supportive policies significantly reduce environmental degradation in terms of litter, trails at non-designated locations, etc.</p> <p>Visually enhances the area, with fewer vehicle parked throughout the canyon and other scenic locations.</p> <p>High frequencies on local shuttle service and good frequencies in the Canyon provide great flexibility for users, and make system a solid alternative to driving.</p> <p>Good connections to labor and housing markets in nearby communities. Enhances tourist and resident parking capacity due to new high-frequency commute alternative for Cottonwood.</p> <p>People with disabilities have excellent access to transit system.</p> <p>Higher parking turnover at Uptown locations allows for more visitors being able to park and shop at Uptown stores.</p> <p>Less congestion on Highways 179 and 89A.</p> <p>Oak Creek Canyon hikers have service option through most daylight hours.</p> <p>Provides a travel alternative for visitors, making the Sedona area a more attractive destination for visitors.</p>
Parking Supportive Policies/Incentives	<p>Enforcement of 4 hour parking in Uptown. \$15 parking ticket</p> <p>Uptown meters @ \$0.50/hour</p> <p>Use of some existing local lots as intercept lots.</p> <p>Residential parking district within ½ mile of 89A</p>	<p>Enforcement of 4 hour parking Uptown</p> <p>Uptown meters @ \$0.50/hour. \$20 parking ticket.</p> <p>Use of some existing local lots as intercept lots.</p> <p>Residential parking district within ½ mile of 89A</p> <p>Prevention of parking in non-designated areas</p>	<p>Uptown meters @ \$2.00/hour. \$25 parking ticket.</p> <p>Intercept lots at gateways/ 500 spaces, \$10/vehicle (free shuttle)</p> <p>Residential parking district within ½ mile of 89A</p> <p>Prevention of parking in non-designated areas</p>

Service Features	1- Minimal	2- Modules	3- Maximum
	Prevention of parking in non-designated areas		

Notes: High season period = April through October, Low season period = November through March. All service hours are seven days a week, except Cottonwood Monday-Friday. Actual service times may shift.

* Fleet requirements in this table do not include spare vehicles, which is generally calculated as 20% of the fleet

Phase 1: Minimum Service

Overview

Phase 1 represents the minimal level of service the consulting team believes is required to achieve some of the benefits outlined in Figure 2-1, in particular creating an alternative to automobile use along SR179 and serving the needs of transit dependent residents in West Sedona. Under this plan, the original Minimal scenario presented to the community in the fall has been modified to reflect community input and a more realistic view of potential funding. This phase focuses resources on the corridor between the Village of Oak Creek and Uptown, in order to capture the tourist market and key destinations such as the Chapel, Tlaquepaque, National Forest destinations along SR179, and the Uptown commercial area. The primary segment of the tourist market that would be targeted under this plan would be overnight visitors who would ride from their hotel, rather than day trippers. Parking meters and limited hour parking will be introduced on SR89A in Uptown in order to generate additional shuttle revenues, provide an incentive for shuttle use, and increase parking turnover.

Service to the West Sedona area has been changed from the original plan for a fixed-route to a flex-route that will serve a broader range of community-oriented origins and destinations on-demand. This type of service meets the requirements associated with the Americans with Disabilities Act (ADA), and will not require additional complementary paratransit service (this is explained more fully later in this report). The projected annual ridership under this scenario is 186,000, which will primarily be focused on visitors in the SR179 corridor. Annual operating costs are estimated at \$784,000, including the cost of providing ADA paratransit service. This does not include the cost of a half-time staff person to oversee the implementation process. Total capital costs in the first year would be approximately \$205,000, assuming a five-year amortization of vehicles. Key features of Phase 1 are:

Fixed-Route Service

- Three buses will operate on a fixed-route between the Village and Uptown.
- Service on this route will be provided every 30 minutes.
- The requirement for complementary ADA paratransit service in this corridor will be met through a contracting arrangement with a local entity such as the Adult Community Center of Sedona (ACCS).

Flex-Route Service

- One bus will operate in West Sedona on a flex-route basis.
- The bus will circulate every hour in West Sedona and then connect to an Uptown transfer point where passengers can transfer to the Village service.

- The flex route will be “anchored” by the Sedona Medical Center on the west and the Uptown transfer point on the east. The route will serve the key shopping and lodging locations along 89A, Sunset Village, and municipal services such as City Hall, the library, and the post office. In contrast to the service area in the previous report, the High School and Cultural Park are not included in this scenario as they are not typical destinations for flex type service. Flex service trips tend to take longer due to route deviations and cannot generally be relied upon for routine trips that are time-sensitive.
- Buses will circulate within a ¼-mile corridor on each side of 89A (except for deviations to Posse Grounds Park).
- Buses will stop within 10 minutes of a scheduled time at 4 to 6 stops within the area.
- If a rider chooses not to use one of the fixed stops, s/he may call to request a trip closer to their home the day before the trip occurs. Pick-ups at the resident’s home can only be guaranteed for those who are ADA-eligible.
- The locations of the bus stops are yet to be determined, but potential candidates are included in the Appendix. Likely stops include the Safeway Shopping Center, Sunset Village, Blue Heron/Andante intersection, and the Coffee Pot/Sunset intersection.

Service Hours for both routes are as follows:

- Low Season (November to March) 8:30 AM to 6:00 PM
- High Season (April to October) 8:30 AM to 7:30 PM. (Note: Actual service times may shift in the final design. Financial calculations are based on the actual number of operating hours, rather than the specific times that service begins and ends).

Fares:

- \$1.00 for a single direction with a two hour time value
- Half-fare for seniors and people with disabilities during midday peak (federal requirement – definition of senior age varies between communities)
- Day Pass for \$2.00

Supportive Parking Policies/ Incentives

Supportive parking policies in Phase 1 will focus on the Uptown district, including a four-hour parking restriction and the introduction of parking fees. Parking fees of \$0.50 per hour are assumed in the financial calculations. This will allow employees to continue parking at the municipal lot without restriction, and will provide sufficient time for the majority of tourists who wish to shop and eat in the Uptown area. Those who wish to park their vehicles for longer than four hours, refueling of the meter will be allowed. To enforce this parking restriction, \$15 parking tickets will be issued to violators.

Intelligent Transportation Systems (ITS)

Real time bus information will be available at gateways and kiosks throughout the area.

In Phase 1 electronic signs will provide “Next Bus” information to bus riders. As service expands, a more elaborate ITS program will be established. ADOT Real time electronic signs at the entrance to the Village, the Cultural Park and Oak Creek Vista will announce “Uptown parking full. Park here for next shuttle. Shuttle arrives in ____ minutes.”

The importance of providing this information in a timely manner to visitors as they approach the area

Figure 2-2 Minimal Service

- INSERT FIRST MAP

Phase 2: Enhanced Service

The service described in the first phase does provide certain benefits that have been identified as key project goals: An alternative to the automobile for tourist destinations along SR179, and basic transit for those who are transit-dependant. However, this plan is only recommended if funding is so limited that enhanced services are not considered financially viable. As additional funds are identified, the preferred model would be the Enhanced Service Plan, which uses a modular approach that builds on Phase 1. The addition of service modules allows for maximum flexibility in the design of the system, based on funding considerations and community preferences. Each module offers a unique set of alternatives, some of which are interdependent. The combination of various modules can represent a comprehensive strategy for expanding shuttle service in the region. Operating and capital costs are provided to assist in the selection of these modules. Following is a brief description of each module:

Oak Creek Canyon Service:

Extend the 179 service to Oak Creek Canyon. Potential stops within the canyon are included in the Bus Stop matrix (See Appendix B). Oak Creek Canyon service is an essential element to any expansion of the introductory service, as the majority of visitors and residents travel into the canyon. While the right-of-way within the canyon is fairly narrow, there are a number of opportunities for buses to pull out of the roadway at a bus stop. In certain locations, buses may need to stop in the right-of-way in a manner that does not represent a safety hazard.

Canyon service will terminate either at Slide Rock State Park, or less than two miles beyond this point (Halfway or Bootlegger sites). There are a number of potential opportunities for a turnaround at Slide Rock that are described in the Bus Stop matrix (See Appendix B).

Timed transfers from the canyon to the West Sedona route will be available at the Uptown Transfer Point. It is anticipated that patrons will have no more than a five minute wait at the Uptown location. However, traffic flows on 179 appear to be more unpredictable than on 89A, particularly in the high season months. This could result in potential delays for transfers to the 179 route. The annual projected ridership for the canyon route is approximately 64,000, and the added operational cost is estimated at \$212,000.

West Sedona Fixed-Route and Flex-Route Service

Fixed-route service will be added to the existing flex service in West Sedona. Based on the ridership levels and concentrations of trip activity in Phase 1, the location of the most popular stops will be fixed to establish a fixed-route service along the 89A corridor. Fixed-route service will be provided every 30 minutes along this corridor, in addition to the flex-route described in the previous phase, which will feed into the fixed-

route service on 89A. This will both allow penetration into the neighborhoods and meet the complementary paratransit requirements of the ADA. The western anchor of the West Sedona service may be shifted westward to the Cultural Park, due to both the activities centered at this location and the potential for a shuttle service intercept parking lot. The annual projected ridership for the fixed-route service is approximately 150,000, and the added operating cost (above the Minimal Scenario cost) would be approximately \$374,000. An additional two vehicles will be required under this scenario.

Figure 2-3 Enhanced Service

INSERT SECOND MAP

Cottonwood Extension

Service will be added between Cottonwood and Sedona. One or two vehicles (depending on which option is selected) will travel between the Wal-Mart in Cottonwood and the Uptown Transfer Point, and then return to Cottonwood.

In Cottonwood, the bus could flex to a number of nearby significant intersections, such as 6th /Willard Streets and the SR89A by-pass, the SR89A bypass/Main Street intersection, or other areas that are significant trip generators. An estimated 15 minutes will need to be built into the schedule to accommodate this flexing component. If sufficient time is available, this could be extended to the SR260 and Western Drive intersection as well

A “park out” arrangement will be built into this scenario under which the shuttle driver will be based in Cottonwood and the vehicle will be parked at a public facility (such as CATS). No cost has been added for remote vehicle parking.

Two service span options are recommended for consideration. The primary factors that have impacted these choices are the transportation needs of service workers whose shifts are spread throughout the day; the significant costs involved in long inter-city trips with limited opportunities for added pick-ups; whether service that breaks during the day can result in real savings due to a lower bus fleet requirement; the need to coordinate or interline with the 179 route segment in order to provide service directly to some of the larger resorts. Costing for each of these is provided in the costing matrix. The projected annual ridership is 32,400 for the peak hour service and 27,600 for the all day service, and operating costs range from \$138,000 to \$212,000. One to three additional vehicles would be required under this scenario.

Option A: Peak service only: 7 AM to 9:30 AM, and noon to 2 PM , every 30 minutes

Option B: All day service, every 90 minutes

Supportive Parking Policies/Incentives

During Phase 2 the parking incentives to use transit would be similar to those described in the first scenario. They include:

- In Uptown, parking will be limited to 4-hours, with the option of refeeding the meter @ \$0.50 per hour, and parking tickets will be raised to \$20.
- To discourage overflow parking from Uptown, a residential parking district will be established within one-half mile of 89A. This district will allow only short term parking (less than 2 hours) by non-residents.
- No new parking construction will be allowed in Uptown.

- Parking in non-designated areas will be prevented through the use of barriers and increased enforcement depending on the jurisdiction (e.g. USFS, City). No new turnouts or new parking locations will be established in Oak Creek Canyon.
- Some existing lots will be used as intercept lots for the shuttle, with directional signage to encourage visitor use of these facilities, e.g. Tequa Plaza, Outlet, Bell Rock, Supermax). These could also be used as an interim step in the Maximum Plan, which is described below.

Phase 3: Maximum Plan

This plan approximates the one described in the Vision Plan completed by a previous consultant in 1998 and exceeds the modules in Phase 2 primarily in the frequency of service and expansion of service hours and area. The anticipated time frame for implementation of this plan is ten years, unless ridership and revenue projections exceed initial estimates. The plan is characterized by significant supportive policies that will create strong incentives for using the shuttle, and strong disincentives for driving into the Uptown and canyon areas. The annual projected ridership under this plan is 720,000. This number is lower than earlier estimates due to the reductions in service span hours and the lower frequency of service.

The significant increases in passenger volume that will be created under this scenario (compared to Phases 1 and 2) will not be sufficient to lessen the financial contribution from the city. This can only be achieved through more stringent parking restrictions and higher charges (see “Self-Supporting Plan”). However, because individuals will need to be encouraged to use the intercept parking lot and to ride the shuttle, the Plan assumes free fares on the fixed-route system for local residents and for visitors using the intercept parking lots at the region’s gateways. Since this scenario assumes that the majority of riders would be tourists, charging a \$1 fare to residents would only yield approximately \$90,000.

Fares revenues will also be generated by overnight visitors. The estimated annual operating cost under this scenario is approximately \$2.4 million. When taking into account the net revenues generated by intercept parking, and adding revenues from overnight visitors, the potential subsidy required would be slightly less than \$1 million. This number could be reduced if the proposed \$10 intercept parking fee and Uptown parking charges are increased, as discussed in the next section. The overall costs of vehicles under this scenario would be \$1,120,000. However, this figure would be amortized over a five year period.

Following are some key service characteristics under this scenario:

- Service every 15 minutes between the Cultural Park and Uptown, and along the 179 corridor
- Service hours extended to 7:30 PM

- Intercept parking at \$10 per vehicle (including oversized vehicles such as RVs, as these should be strongly encouraged to use the intercept parking lot rather than entering Oak Creek Canyon).
- Service frequency to Cottonwood is improved in the off-peak hours to a bus every 45 minutes.
- Free fares on all fixed-route shuttle services in the City and the Village
- Fares on Cottonwood and flex-routes are unchanged
- Extension of the shuttle Oak Creek Canyon route to Oak Creek Vista

Figure 2-4 Maximum Plan

INSERT THIRD MAP

Supportive Parking Policies/ Incentives

Under this scenario, visitors who use intercept parking lots at regional gateways will travel for free, while overnight visitors will be required to pay \$3 for day passes. Residents will receive free annual passes to ride the shuttle. These can be included in resident utility bills.

- Intercept parking lots will provide space for a total of 500 cars. New parking facilities will be located at the Cultural Park for eastbound travelers, and at Oak Creek Vista for southbound travelers. The proposed U.S. Forest Service's South Gateway site will also be used for intercept parking. The parking fee at these lots is proposed at the \$10 per vehicle per day level, which includes a free shuttle fare for all passengers.
- The operator will be responsible for providing shuttle service and collecting parking fees at the lots, but will not be responsible for buying the land or constructing the lots.
- Uptown parking rates will be raised to \$2 per hour.
- Parking charges may need to be adjusted based on the availability of parking in the Uptown area and the success of these charges as an incentive to ride the shuttle. In order to ensure that approximately 15% of the on-street parking is available at any time (a desirable industry standard), the proposed \$2 fee may need to be increased and/or the rates at the intercept parking lot reduced.
- Free residential parking permits will be available to Sedona residents. Residents may also be able to purchase permits for their guests – however these revenues have not been included in our calculations.

Self-Supporting Maximum Plan

The preliminary Vision Plan completed by the previous consultant suggested that shuttle service in Sedona could be self-supporting under certain conditions. The primary means of generating sufficient funds to cover all costs and eliminate the need for public subsidies would be through fare and parking revenues. This would require strict enforcement of parking regulations and a significant increase in parking fee levels.

The consultant team conducted a sensitivity analysis to determine the level of parking fees that would be required to achieve this goal. Our analysis indicates that daily parking fees of \$20 per vehicle would need to be charged at the intercept lot, while parking fees of at least \$4 per hour will be required in Uptown Sedona. **These fees would likely be considered unreasonably high by potential visitors to Sedona and local residents. For this reason the Self-Supporting Plan is not recommended in this report.** However, depending on the level of public support for shuttle after the implementation of the first two phases, the annual subsidy in the long-term could be located on a continuum between the \$989,000 under the Maximum Plan and the zero

subsidy level indicated in the Self-Supporting Plan. Parking fees and restrictions would need to be adjusted accordingly.

Meeting the ADA Complementary Paratransit Service Obligations

In Phase I the ADA requirements for complementary paratransit service will be met in West Sedona through the flex-service – under the ADA, no paratransit service is required if fixed-route is unavailable. Only those who are determined ADA-eligible will be allowed to request door-to-door service. This will necessitate the creation of an eligibility screening process to certify ADA applicants in the area. The Adult Community Center of Sedona (ACCS) would be a suitable candidate to fill this role.

No flex service is currently being proposed for the SR179 corridor, since the risk of compromising schedule adherence on the regular fixed-route service is too great. However, according to the ADA, curb-to-curb service is required within $\frac{3}{4}$ mile on either side of 179. In order to meet this need, we recommend that the City contract with the Center to expand its current transportation program to serve the mobility needs of those who are ADA-eligible. This service will expand to the entire shuttle service area in Phases 2 and 3 due to the expansion of fixed-route service.

Annual paratransit ridership is estimated to range from 5,000 to 10,000 per year, based on per capita ratios in other small communities and the different levels of service in each phase. The annual cost of providing this service will range from under \$40,000 to over \$70,000. This is based on a cost per trip assumption that is twice the current cost of ACCS service, due to the added costs associated with ADA level of service, such as the need to establish an eligibility screening process and the prohibition on trip denials for those who are ADA-eligible.

Potential Enhancements and Options for Reducing Costs

The final shuttle implementation plan may incorporate numerous ridership enhancements that have not been included in this study's financial calculations. Some of these enhancements would increase ridership without adding costs, while others may in the short term require increased costs or more restrictive parking policies. These tradeoffs will need to be considered by the entity responsible for the final design of the system. Some of these potential ridership enhancing measures, which could be introduced in any phase of the plan, are listed below:

- Red Rock Pass – could be used as an incentive to ride in lieu of fares, or as a source of additional revenues.
- Parking restrictions at the Chapel, Slide Rock, and other USFS destinations.

- Real-time information kiosks and message signs, both at the entrances to the study area and at key transfer locations and bus stops.
- Transit oriented development Uptown, including enhanced walking environment and signage.
- Establishing an Uptown Business Improvement District
- Pre-sale of shuttle tickets on the internet.
- Special events services.

In addition to these potential ridership enhancements, there are also a number of reduced service options that could be considered as a means of cutting costs. Each option with associated costs is presented below (capital costs have not been amortized in this section).

- Low Season service could be reduced to Friday, Saturday, and Sunday. This proposal would be in recognition of the significant number of day-trippers (41%) who tend to visit the area on weekends only. Estimated savings - \$187,000 (operating costs)
- Rather than serving the Village on every trip in the State Highway 179 route segment, the bus could make one stop at Tlaquepaque and turn back at the resort area (in the vicinity of the Radisson) on every alternate run. This option will concentrate more service in the core area, while providing less frequent but continuous service to the Village. Operating hours would be significantly reduced by requiring one less bus and eliminating the congestion factor on 179 south of the resort area, resulting in considerable cost savings. However, the range of accessible tourist destinations will be curtailed under this scenario. Estimated savings - \$187,000 operating, \$80,000 capital costs.
- If the City of Sedona is the primary funding source and administrator of the service, and no regional funds are forthcoming, the service could be initiated as a “Sedona Only” service, which would retain the service features described above, but with a southern terminus at the Chapel. Besides the cost savings, the primary advantage of this scenario is that service is retained to the area’s most popular tourist destination (the Chapel). The main disadvantage is that visitors would still need to bring their cars into the City, resulting in limited reduction of traffic volumes on 179 and parking demand in the Uptown area. Estimated savings - \$187,000 operating, \$80,000 capital costs.

Options for Uptown Transfer Point

The shuttle system for Sedona is based on a timed transfer model, in which three main route segments (179, 89A, and Oak Creek Canyon), feed into a central Uptown location, where passengers have the option of transferring between buses. On certain routes, buses will be “interlined,” thus eliminating the need for some transfers. For example, if the northbound bus from the Village is interlined at the Uptown transfer point

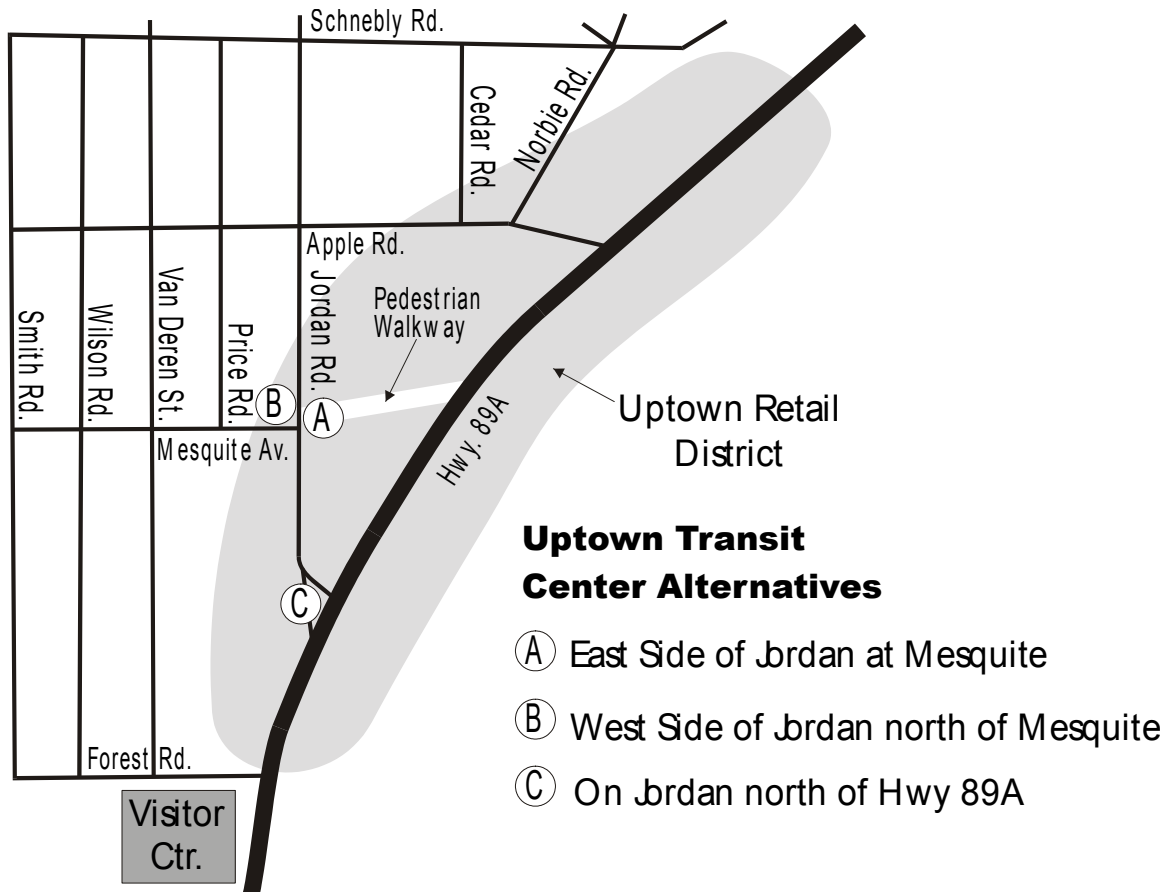
through to the canyon, passengers will be able to wait on the bus for a short layover before continuing into Oak Creek Canyon.

In assessing the preferred location for the transfer point, a number of criteria must be met:

- Sufficient lane capacity is available to allow up to three buses to layover for five to ten minutes.
- The location is visible to most tourists, thus advertising the presence of a shuttle system.
- There is reasonable ingress and egress to the location, including eliminating the need for left turns onto congested streets, turning at intersections that have signals, avoiding blockage of oncoming traffic.
- There is sufficient sidewalk capacity to allow for the installation of passenger amenities such as seating and an informational kiosk.
- The impact of the transfer point on adjacent merchants can be mitigated.
- The location should serve as a popular destination and activity center.

This transfer point option is referred to as the Uptown Transit Center. Three options are presented below. It should be noted that the “Y” was considered and rejected as a possible transfer location for the following reasons: the area is congested; most riders would need to walk a few hundred yards along 89A to reach the Uptown commercial area; and the area is not pedestrian-friendly.

Figure 2-5 Uptown Transit Center Alternatives



Locating the transit center in the Uptown area has several advantages.

1. Uptown is a hub of tourist activity and visitor-related commerce in the Sedona area.
2. To facilitate route connections, Uptown is conveniently located at the base of Oak Creek Canyon, making it a logical transfer location.
3. Although automobile-friendly, Uptown shops are pedestrian-oriented and there is a high level of pedestrian activity in this area.
4. A stopover point for buses in Uptown affirms the city's commitment to shuttle service by providing buses at a featured visitor location.
5. An Uptown transit center integrates the shuttle into the area of the city with potentially high demand: the area has high traffic congestion and limited parking.
6. Uptown merchants will benefit from both patronage and advertising benefits of a central transfer point.

The various alternative sites for the Uptown Transit Center are illustrated in Figure 2. Each of these preliminary transit center alternatives is described in the following sections.

Option A. East Side of Jordan at Mesquite

This alternative would place the shuttle transfer point on the east side of Jordan Road, opposite Mesquite Avenue. All shuttle vehicles would be faced in a northbound direction at this stop. The advantage of this shuttle stop location is that it provides good access to the Uptown commercial district by locating a stop at a pedestrian mall that serves the retail area. It also affords convenient access to Highway 89A. The disadvantages are that improvements would be required at this stop location. While a convenient location, this transit center location is not “front and center” on Highway 89A and may seem relegated to a low-activity area. In addition, the intersection at Jordan Road and Highway 89 is not signalized, requiring routing on other Uptown area streets.

To establish a transit center at this site, significant improvements would be required, including a sidewalk and passenger waiting area. Jordan Road is wide enough at this point to allow for the shuttle buses to remain on the road without impeding traffic, although a slight turnout would be preferred, if only to set aside a clear “bus only” waiting area. To establish a transfer point at this location may require the removal of some parking, including parking areas that provide rear access to some of the businesses, including trash collection. To mitigate the need to do this, it is recommended that the stop/waiting area be primarily to the north of the pedestrian pathway. Image A, below, illustrates the accessway from Jordan Road, which would serve as the primary pedestrian access to the retailers on 89A. Image B illustrates the view to the north, where the development of a passenger waiting area would be less costly and would not impede rear retail access. Image C, view to the south, highlights the challenges of constructing a transit stop at this site.

Image A – Option A



Image B – Option A, Northbound View on Jordan Rd.



Image C – Option A, Southbound View on Jordan Rd.



Option B. West Side of Jordan North of Mesquite

Across Jordan Road from the location identified in Option A, this alternative would site the transit center at an existing layover area designed for tour buses. This stop would be immediately to the north of Mesquite Avenue, beginning at the intersection of these roads. The shuttle vehicles would face southbound at this stop. The advantage of this location is that it is an existing bus layover area with a curb and sidewalk, as well as providing benches for passenger waiting. It also has a crosswalk to the pedestrian accessway described in Option A. The primary disadvantage is that being across the street from the commercial area makes it less visible and more remote, especially for travelers unfamiliar with the area. As with Option A, there is not a traffic signal at Jordan Road and Highway 89.

Jordan Road is wide and shuttle buses would be able to remain on the road without impeding traffic. A bus waiting area is already painted on the road. Signage and shelters would be recommended to improve this stop location.

Image D illustrates this stop location, with a view to the north from Mesquite Avenue. Image E shows Option B on the left side of Jordan Road, including the crosswalk and the Option A stop on the right side of the road.

Image D – Option B, Northbound View on Jordan Road



Image E – North on Jordan Road, Option B on Left and Option A on Right



C. On Jordan North of Highway 89A

This alternative sites a transfer location in the heart of the Uptown Commercial District, locating it on Jordan Road, at the intersection of Highway 89A where a landscaped median creates a separated right turn/parking area in front of the Silver Saddle. The advantage of this location is that it provides excellent access to business in the Uptown area with a centralized location along the main artery. This provides excellent visibility for the shuttle and affords shuttle riders an opportunity to shop and dine within view of the shuttle stop. Several disadvantages, however, make this location a challenge. First, it would likely be the most costly of the alternatives to develop. A shuttle stop in this location would require the elimination of approximately 12 parking spaces directly in front of several Uptown businesses. It would also require a roadway configuration whereby cars would no longer be able to use the right turn/parking lane on the west side of the median because this area would be converted to a “shuttle only” parking area. In addition, sidewalk improvements would be required, as would passenger amenities. Ideally, the street would be repaved to identify the area as closed to through-traffic. The high volumes of pedestrians in this area might also present some operational challenges for the shuttles because they represent a safety hazard.

While this alternative presents more challenges than the others, it also provides the opportunity for a more significant transit center development, including more comprehensive landscaping and integration into the pedestrian environment of Uptown. For example, a shuttle stop here could include the development of a small pedestrian plaza that utilizes the planted median. Any number of configurations for a transit center at this location are possible, but the presumed location would allow buses to park facing southbound in an area currently dedicated to parking. This area is illustrated in Images F1 and 2. Image G shows the median area that could be developed as a transit center, plaza, or passenger waiting area. Image H provides a southbound view of the parking spaces immediately to the south of the Option C site, illustrating the significant right-of-way available for development as a transit center.

Image F1 – Option C, View to North on Jordan Rd.



Image F2 – Option C, View to North on Jordan Rd.



Image G – Planted Median at Intersection of Jordan Road and Highway 89A, View Northbound, South of Proposed stop location, on West Side of Highway 89A.



Image H – Option C, View South on at Intersection of Jordan Rd. and Highway 89A



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